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5 [0009] The invention will be better understood on reading the description which follows, given merely by way of example, and while referring to the appended drawings in which:

- figure 2 is a partial diagrammatic section illustrating the structure of the door of the cabinet of a variant of the assembly of figure 1.

20 [0011] It is recalled that radiofrequency waves are
electromagnetic waves. In the examples described
hereinbelow, the frequencies of the waves which may be
used will for example be 125 kHz, 13.56 MHz and
25 2.45 GHz. However, other frequencies may of course be
envisaged.

[0013] The walls of the cabinet 2 delimit internally a
35 confined work space 9, suitable for carrying out work.

[0014] The front face of the vessel 7 is open so as to form an opening 10 for access to the work space 9, which opening may be shut off and/or freed by the wall 5.

[0015] More precisely, the wall 5 comprises a first inside door 11 and a second outside door 2.

5 [0016] The first door 11 is for example made of glass or plexiglass (registered trademark). The second door 12 has for example, like the walls forming the vessel 7, a double-envelope structure comprising an inside panel made of plastic, a metal outside panel, and a
10 layer of a thermally insulating material disposed between the inside and outside panels.

[0017] The two doors 11 and 12 are articulated on one and the same side of the vessel 7 so as to be able to
15 be opened independently by rotation in the direction of the arrow labeled by the reference 13 in figure 1. The opening of the door 12 only allows visual monitoring, through the door 11 transparent to optical waves, of the progress of the operation carried out in the work
20 space 9.

[0018] The cabinet 2 is furthermore furnished with heating means (not represented) so as to constitute an
25 oven.

[0019] The system 3 comprises an information processing and communication unit 14 and at least one antenna 16 hooked up electrically to the unit 14.

30 [0020] In a conventional manner, the unit 14 can comprise a computer, means for storing data in the form of any appropriate memory, a clock, and a module for transmitting and receiving radiofrequency waves.

35 [0021] The antenna 16 which is a conventional antenna is carried by the outside surface 18 of the inside door 11, to which it is for example glued. Thus, the antenna 16 is disposed outside the work space 9 and is insulated therefrom by the entire thickness of the

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[0022] when a receptacle 20, containing a biological sample and equipped with a radiofrequency identification transponder 22 tuned with the radiofrequency module of the unit 14, is placed in the work space 9, the antenna 16 can via radiofrequency waves exchange information with the transponder 22, since the inside door 11 which separates the antenna 16 from the work space 9 is completely transparent to the radiofrequency waves used by the communication system 3.

15 **[0023]** The communication system 3 can thus interrogate
the transponder 22 and receive in response the
identifier of the sample contained in the receptacle
20, but also exchange any other information with the
transponder 22 in a conventional manner, for example by
20 providing it with information relating to the thermal
cycle undergone by the sample inside the cabinet 2.

[0024] The antenna 16 being insulated from the work space 9 and hence from its atmosphere, it is not subjected to the physical and chemical conditions to which the sample of the receptacle 20 is subjected. Thus, the antenna 16 is protected from physical and chemical attacks and the communication system 3 operates satisfactorily.

[0025] Moreover, the cleaning of the cabinet 2 and in particular of the inside surfaces of the walls delimiting the work space 9 is made easier.

35 [0026] Finally, the position of the antenna 16 also makes it easier to hook it up to the unit 14 since it is not necessary to pass completely, that is to say over its entire thickness, through a wall of the cabinet 2, to ensure such a hookup.

[0027] In the variant of figure 2, the cabinet 2 constitutes for example a refrigerator and the wall 5 is a simple door with a double-envelope structure. The movable wall or door 5 thus comprises an inside panel 24, an outside panel 26 and a layer 28 of a thermally insulating material disposed between the panels 24 and 26.

[0028] The inside panel 24 is for example made of a plastic and the layer 28 for example of polyurethane foam, these two materials being transparent to the radiofrequency waves used by the communication system 3 and by the transponders 22 of the receptacles 20 intended to be placed in the cabinet 2.

[0029] The outside panel 26 is for example made of metal.

[0030] The antenna 16 is disposed in the wall 5, between the panels 24 and 26, in proximity to the panel 24. The antenna 16 is embedded in the layer 28. In a variant it can be in contact with the inside panel 24.

[0031] The antenna 16 is insulated from the atmosphere of the work space 9 by the inside panel 24 of the wall 5 and an inside region 29 (one boundary of which is represented dashed) of the layer 28, thereby making it possible to limit the physical and chemical attacks of the antenna 16 and to make it easier to clean the cabinet 2. In particular, the presence of the region 29, in addition to the panel 24 which forms a separating partition, enables the antenna 16 and its electrical connections to be effectively thermally insulated from the atmosphere of the work space 9. Thus, the system 3 operates reliably and satisfactorily even if the temperature prevailing in the space 9 reaches for example -80°C .

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heat, so as to maintain its inside temperature substantially constant.

5 [0038] More generally, the work carried out in the cabinet can consist in subjecting objects contained in the work space to specified physical conditions, for example to a temperature as indicated earlier or to a specified pressure, and/or to specified chemical conditions, for example to a CO₂-monitored and humidity-monitored atmosphere.

[0039] More generally, if the cabinet possesses several shelves for supporting receptacles 20 dividing the work space 9 into several compartments, an antenna 15 16 can be disposed opposite each compartment of the work space 9, so as to enable the system 3 to locate the samples in the work space 9.